

**ABSTRACT OF THE DISCLOSURE**

The present invention is directed to a method of forming a clamping plate for a multi-polar electrostatic chuck. The method comprises forming a first  
5 electrically conductive layer over a semiconductor platform and defining a plurality of portions of the first electrically conductive layer which are electrically isolated from one another. A first electrically insulative layer is formed over the first electrically conductive layer, the first electrically insulative layer comprising a top surface having a plurality of MEMS protrusions extending a first distance  
10 therefrom. A plurality of poles are furthermore electrically connected to the respective plurality of portions of the first electrically conductive layer, wherein a voltage applied between the plurality of poles is operable to induce an electrostatic force in the clamping plate.